## SOLAR ENERGY PLAN OF DEVELOPMENT

The following outline identifies the minimum requirements for a Solar Energy Plan of Development (POD) to be submitted prior to initiation of NEPA analysis (including publication of a Notice of Intent to prepare an EIS) for a solar energy development project. These minimum requirements provide the basic information necessary to begin the NEPA analysis and review process. The specific outline format and title for each section of the POD does not have to be consistent with this template, however, the content of the POD needs to include these minimum requirements.

The Solar Energy POD is a dynamic document that may require additional information during the NEPA review and analysis process. The initial POD template is just that, initial. It may require different information from the applicant depending upon the solar technology, the environmental resources that may be impacted, the location of the proposed project, the timing of the project, etc. There may be information required from one applicant that is not required by another applicant, because of the issues or resources involved.

**Supplementary Information:** Additional Supplementary Information (attached) will be required, after publication of the Notice of Intent, to prepare and complete the NEPA process. Alternative designs and mitigation measures developed in the NEPA analysis will be incorporated into a final POD. Additional environmental information and data (including wildlife surveys, sensitive plants and cultural resource surveys) will be required as part of the NEPA analysis process.

**Solar Energy Plan of Development Outline:**

I. Project Description

A. Introduction

1. Describe type of facility, planned uses, generation output

*Type of Facility/Planned Use*

- *Concentrated Photovoltaic Electric Generation Facility*

*Generation Output*

- *Lucerne Valley Solar Project (LVSP-1): 200 MW*
- *Lucerne Valley Solar Project (LVSP-2): 250 MW*
- *Lucerne Valley Solar Project (LVSP-3): 250 MW*
- *Lucerne Valley Solar Project (LVSP-4): 129 MW (Planned future expansion on BLM land)*

2. Applicants schedule for project, including anticipated timelines for permitting, construction and operation, and any phased development as appropriate

- *LVSP-1 Project Schedule: See Exhibit A-1*
- *LVSP-2 Project Schedule: See Exhibit A-2*
- *LVSP-3 Project Schedule: Same as for LVSP-2 except construction would begin on 6/27/16 and end on 12/23/18*
- *LVSP-4 Project Schedule: Same as for LVSP-2 except construction would begin on 12/31/18 and end on 7/2/21*

B. Proponents Purpose and Need for the Project

*The purpose of the proposed solar project is to produce clean renewable power, using concentrated solar photovoltaic technology, for California consumers. Need for the project is driven by:*

- *Requirement by California utilities to meet RPS requirements*
- *Reduction in emissions contributing to global warming*
- *Reduction in dependence on imported fossil fuels (i.e. increase in energy independence)*
- *Water conversion*
- *Creation of jobs resulting from local manufacturer of equipment, and construction and operations of solar plant.*

C. General Facility Description, Design and Operation

1. Project location, land ownership and jurisdiction

- *LVSP, Phase 1 is planned for development on approximately 1,280 acres of State lands administered by the California State Lands Commission (SLC)(See Exhibit B-1). This land is located north and south of the intersection of Highway 247 and Lucerne Valley Cutoff. A total of 3,776 solar arrays are planned for installation at this site.*
- *LVSP, Phase 2 is planned for development on approximately 1,694 acres of State lands (See Exhibit B-1). This land is located on both sides of Lucerne Valley Cutoff about one to three miles northwest of the intersection of Highway 247 and Lucerne Valley Cutoff. A total of 4,720 solar arrays are planned for installation at this site.*
- *LVSP, Phase 3 is planned for development on approximately 1,826 acres of State lands (See Exhibit B-1). All of this land is located on the north side of Lucerne Valley Cutoff about three miles north of the intersection of Highway 247 and Lucerne Valley Cutoff. A total of 4,719 solar arrays are planned for installation at this site.*
- *LVSP, Phase 4 is planned for development on approximately 866 acres of Federal land administered by the Bureau of Land Management (BLM)(See Exhibit B-1). One approximately 546 acre land parcel is on the north side of Lucerne Valley Cutoff about two to three miles north of the intersection of Highway 247 and Lucerne Valley Cutoff. The other approximately 320 acre land parcel is located about a half mile east of the intersection of Highway 247 and Lucerne Valley Cutoff. A total of 2,360 solar arrays are planned for installation at these two sites.*
- *LVSP, Phase 5 is planned for development on approximately 2,000 acres of land on both the west and east sides of Highway 247 (Barstow Road) approximately 4.6 miles north of the intersection of Highways 18 and 247 (See Exhibit B-2). This land is comprised of approximately 1,680 acres of land administered by BLM and 320 acres of State lands administered by SLC.*

2. Legal land description of facility

*Table 1 - Land Description*

| Assessor's Parcel # (APN) | Township /Range | Description | Acres | Reference Meridian | # of Solar Arrays | # of Inverters | # of Dist. Transfs | Approx MW of Cap | Approx Water Usage (gal/yr) |
|---|---|---|---|---|---|---|---|---|---|
| **PHASE 1 - SLC LAND** | | | | | | | | | |
| 0464-301-16-0000 | 6N / 1W | W 1/2 SEC 15 | 320 | 34°, 36' N & 116°, 58' W | 944 | 944 | 95 | 50.0 | |
| 0464-301-17-0000 | 6N / 1W | NW 1/4 SEC 10 | 160 | 34°, 37' N & 116°, 58' W | 472 | 472 | 48 | 25.0 | |
| 0464-301-18-0000 | 6N / 1W | NE 1/4 AND S 1/2 SEC 10 | 480 | 34°, 37' N & 116°, 58' W | 1,416 | 1,416 | 142 | 75.0 | |
| 0464-301-19-0000 | 6N / 1W | S ½ FRAC SEC 3 | 320 | 34°, 38' N & 116°, 58' W | 944 | 944 | 95 | 50.0 | |
| **TOTAL PHASE 1** | | | **1,280** | **6.39** | **3,776** | **3,776** | **380** | **200.0** | **151,040** |
| **PHASE 2 - SLC LAND** | | | | | | | | | |
| 0464-301-01-0000 | 6N / 1W | FRACT SEC 6 | 574.14 | 34°, 38' N & 117°, 01' W | 1,599 | 1,599 | 160 | 84.7 | |
| 0464-301-02-0000 | 6N / 1W | NE ¼ FRACT SEC 7 | 160 | 34°, 37' N & 117°, 01' W | 446 | 446 | 45 | 23.6 | |
| 0464-301-04-0000 | 6N / 1W | E 1/2 W 1/2 AND SE 1/4 FRACT SEC 7 | 320 | 34°, 37' N & 117°, 01' W | 891 | 891 | 90 | 47.2 | |
| 0464-301-05-0000 | 6N / 1W | SEC 8 | 640 | 34°, 37' N & 117°, 00' W | 1,784 | 1,784 | 179 | 94.5 | |
| **TOTAL PHASE 2** | | | **1,694** | **6.77** | **4,720** | **4,720** | **474** | **250.0** | **188,800** |
| **PHASE 3 - SLC LAND** | | | | | | | | | |
| 0417-162-53-0000 | 7N / 1W | ALL OF SEC 32 | 640 | 34°, 39' N & 117°, 00' W | 1,653 | 1,653 | 166 | 87.6 | |
| 0417-162-54-0000 | 7N / 1W | ALL OF FRACT SEC 31 | 493.6 | 34°, 39' N & 117°, 01' W | 1,276 | 1,276 | 128 | 67.6 | |
| 0417-171-21-0000 | 7N / 1W | S 1/2 NW 1/4 and SW 1/4 and W 1/2 SE 1/4 SEC 34 | 320 | 34°, 39' N & 116°, 58' W | 827 | 827 | 83 | 43.8 | |
| 0464-301-19-0000 | 6N / 1W | N ½ FRACT SEC 3 | 372.88 | 34°, 38' N & 116°, 58' W | 963 | 963 | 97 | 51.0 | |
| **TOTAL PHASE 3** | | | **1,826** | **7.30** | **4,719** | **4,719** | **474** | **250.0** | **188,760** |
| **TOTAL PHASES 1-3** | | | **4,801** | | **13,215** | **13,215** | **1,328** | **700** | **528,600** |
| **PHASE 4 (Future Expansion)- BLM LAND** | | | | | | | | | |
| 0464-281-XX-0000 | 6N / 1W | NW QUADRANT FRACT SEC 4 | 173 | 34°, 38' N & 116°, 59' W | 470 | 470 | 47 | 24.9 | |
| 0464-282-XX-0000 | 6N / 1W | NE QUADRANT FRACT SEC 4 | 173 | 34°, 38' N & 116°, 59' W | 470 | 470 | 47 | 24.9 | |
| 0464-291-XX-0000 | 6N / 1W | S 1/2 FRACT SEC 4 ALL AVAILABLE BLM LOTS | 200 | 34°, 38' N & 116°, 59' W | 546 | 546 | 55 | 28.9 | |
| 0464-301-16-0000 | 6N / 1W | E ½ SEC 15 | 320 | 34°, 36' N & 116°, 58' W | 874 | 874 | 88 | 46.3 | |
| **TOTAL PHASE 4** | | | **866** | **6.91** | **2,360** | **2,360** | **237** | **125.0** | **94,400** |
| **PHASE 5 (Future Expansion)- BLM LAND** | | | | | | | | | |
| 0452-011-35-0000 | 5N / 1W | S 1/2 N 1/2 SEC 14 | 160 | 34°, 32' N & 116°, 57' W | 450 | 450 | 45 | 23.8 | |
| 0452-071-01-0000 | 5N / 1W | N 1/2 AND SW 1/4 SEC 24 | 480 | 34°, 31' N & 116°, 56' W | 1,348 | 1,348 | 135 | 71.4 | |
| 0452-021-01-0000 | 5N / 1W | SEC 22 EX NW 1/4 SW 1/4 EX NW 1/4 AND EX NW 1/4 NE 1/4 | 400 | 34°, 31' N & 116°, 58' W | 1,123 | 1,123 | 113 | 59.5 | |
| 0452-031-01-0000 | 5N / 1W | SEC 26 | 640 | 34°, 30' N & 116°, 57' W | 1,799 | 1,799 | 180 | 95.3 | |
| **TOTAL PH 5-BLM** | | | **1,680** | **6.72** | **4,720** | **4,720** | **473** | **250** | **188,800** |
| **PHASE 5 (Future Expansion)- SLC LAND** | | | | | | | | | |
| 0452-011-34-0000 | 5N / 1W | S 1/2 SEC 14 | 320 | 34°, 31' N & 116°, 57' W | 944 | 944 | 95 | 50.0 | |
| **TOTAL PH 5-SLC** | | | **320** | **6.39** | **944** | **944** | **95** | **50** | **37,760** |
| **TOTAL PH 5-BLM & SLC** | | | **2,000** | | **5,664** | **5,664** | **568** | **300.0** | **226,560** |
| **TOTAL PHASES 1-5** | | | **7,666** | | **21,239** | **21,239** | **2,133** | **1,125** | **849,560** |

3. Total acreage and general dimensions of all facilities and components
    - *See Table 1 above for total acreage of all facilities and components*
    - *See Table 2 for general dimensions of solar array*
4. Power plant facilities description

    *The Amonix system shown in Figure 1 consists of the following major subsystems noted in Figure 2:*

    - *MegaModule subsystem – Concentrates the sun's energy on a solar cell that converts it into electrical energy. It consists of Fresnel lenses, solar cells, and structure. Each system consists of five to seven MegaModules.*
    - *Drive subsystem – Rotates the MegaModules in azimuth and elevation to track the sun. The drive system consists of a foundation, pedestal, rotating bearing head, hydraulic actuators, and torque tube.*
    - *Hydraulic subsystem – Applies hydraulic pressure to one side of the hydraulic actuators to move the torque tube and MegaModules in elevation and azimuth in order to keep the system pointing at the sun. The hydraulic system consists of hydraulic valves, accumulator, pump, reservoir, and pressure sensors.*
    - *Tracking control subsystem – monitors sensors on the system, calculates the required movement for the commanded operation, and applies signals to the hydraulic valves to move the system to the commanded position. The commanded position could be to track the sun, move to a night stow position, move to a wind stow position, or move to a maintenance position.*
    - *AC/DC control subsystem – Combines the DC power, converts it to AC power, and interfaces with the AC grid. It consists of DC fuses, circuit breakers, and inverter.*

Figure 1. Amonix 35 kW HCPV system


Figure 2 – Major subsystems and components of the Amonix system

*Refractive optics is used to concentrate the sun's irradiance onto a solar cell, as illustrated in Figure 3. A square Fresnel lens, incorporating circular facets, is used to turn the sunrays to a central focal point. A solar cell is mounted at this focal point and converts the sun power into electrical power. A number of Fresnel lenses are manufactured as a single piece, or parquet. The solar cells are mounted on a plate, at location corresponding to the focus of each Fresnel lens. A steel C-channel structure maintains the aligned positions of the lenses and cell plates. The lenses, cell plates, and steel structure are collectively referred to as an Amonix MegaModule (see Figure 4). Each MegaModule is designed to produce 7.46 kW of AC power at 850 W/m$^2$ direct normal insolation and 20 degree C*

*ambient temperature (IEEE standard). Seven MegaModules are mounted on a sun-tracking structure to obtain a nominal 53kW-AC array. The physical characteristics of a 53kW, multi-junction unit are shown in Table 1.*

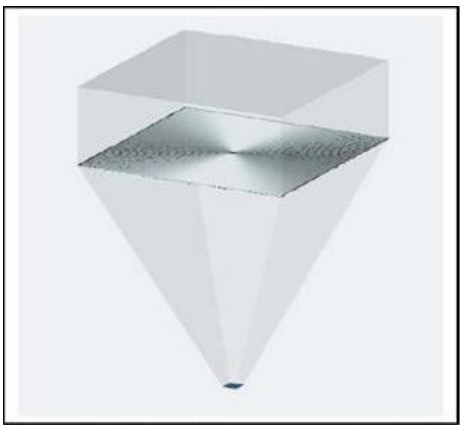

Figure 3.

Fresnel lens concentrates the sun's power on the cell

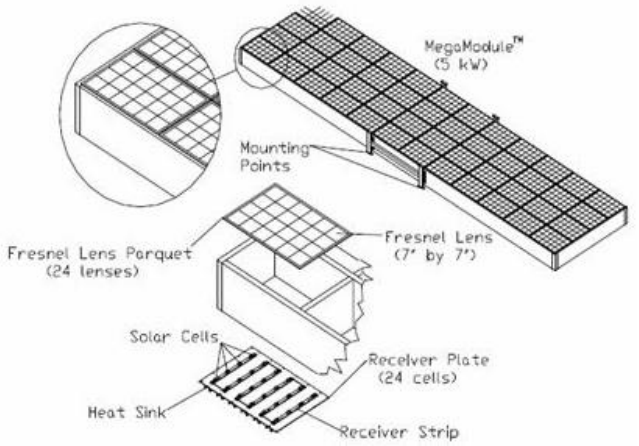


Figure 4.

Amonix MegaModule major components

| Table 2. Physical Characteristics | |
|---|---|
| Rated Power Output @ 850 W/m$^2$, 25$^o$ C, 1 m/s wind | 53 kW AC |
| Number | 7 Modules |
| Collector Size (ft) | 77 x 48 x 1.5 |
| Aperture Lens Area | 267 m$^2$ |
| Total Face Area | 322 m$^2$ |
| Number of Cells | 7,560 |
| Concentration Ratio | 500:1 suns |
| Operating Voltage | 320 V-DC / 208 V 3 phase AC |
| Wind Stow Speed | 27 mph |
| Max. Wind Speed | 90 mph |

*The center of the horizontal torque tube is approximately 26 feet above ground. When operating, the maximum height of the MegaModule varies from 28 feet, 3 inches to 49 feet depending on the angle of the sun. The height of the MegaModule is 27 feet while in the stow position.*

5. Numbers and general dimensions of solar array, power generation units (wet or dry cooling), towers, substations, transmission lines, access roads, buildings, parking areas
    - *See Table 1 for number of solar arrays.*
    - *See Table 2 for general dimensions of solar array.*
    - *See Exhibit B-1 for number of substations, transmission lines, buildings and parking areas.*
6. Temporary construction workspace, yards, staging areas
    - *See Exhibit B-1*
7. Geotechnical studies and data needs, including solar insolation testing
    - *Geotechnical studies will be performed as part of the planned engineering work done prior to construction. Field investigation may include geophysical surveys and core borings. These studies will primarily focus on the required foundation requirements for supporting the solar array.*
    - *Extensive solar insolation testing has been conducted by Amonix at its Las Vegas, NV test site. Additionally, Cannon has been collecting solar insolation data in the Lucerne Valley area since May 2008. This data will be correlated with the Las Vegas test site data to extrapolate a long-term annual average direct normal solar radiation index for the Lucerne Valley site. Preliminary data indicates that the annual average direct normal solar radiation for the site is 7.2 kW/$m^2$/day.*
8. Ancillary facilities (administrative and maintenance facilities and storage sites)
    - *See Exhibit B-1*
9. Water usage, amounts, sources (during construction and operations)

    *<u>LVSP-1</u>*
    - *Water Usage during Construction: A total of about 30,000 gallons would be used during construction primarily for dust control.*
    - *Water Usage during Operations: A total of about 151,000 gallons/year would be used during operations primarily to clean the lenses on each solar array.*
    - *Water Source: Water would be obtained from on-site well. Water would be demineralized before use.*

    *<u>LVSP-2</u>*
    - *Water Usage during Construction: A total of about 37,500 gallons would be used during construction primarily for dust control.*
    - *Water Usage during Operations: A total of about 188,800 gallons/year would be used during operation primarily to clean lenses on each solar array.*
    - *Water Source: Water would be obtained from on-site well. Water would be demineralized before use.*

*LVSP-3*

- *Water Usage during Construction: Same as LVSP-2.*
- *Water Usage during Operations: Same as LVSP-2.*
- *Water Source: Same as LVSP-2*

*LVSP-4*

- *Water Usage during Construction: A total of about 18,750 gallons would be used during construction primarily for dust control.*
- *Water Usage during Operations: A total of about 94,400 gallons/year would be used during operation primarily to clean lenses on each solar array.*
- *Water Source: Same as LVSP-2*

*LVSP-5*

- *Water Usage during Construction: A total of about 45,000 gallons would be used during construction primarily for dust control.*
- *Water Usage during Operations: A total of about 226,500 gallons/year would be used during operation primarily to clean lenses on each solar array.*
- *Water Source: Water would be obtained from on-site well. Water would be demineralized before use.*

10. Erosion control and storm water drainage
    - *Drainage ditches will be built around the electrical substations and O&M facility to channel water away from these facilities. Natural drainage will be relied upon in the solar field area.*
11. Vegetation treatment and weed management
    - *Plants over approximately 2' in height will be removed within a radius of 40' of the column supporting each solar array. Such vegetation remediation is considered minimal after preliminary site review. Upon commercial operation, vegetation will be monitored and growth controlled to within height standards through environmentally approved measures.*
12. Waste and hazardous materials management
    - *Any replaced photovoltaic cells used in the solar arrays or batteries used to provide backup power in the Project substation will be recycled*
13. Fire protection
    - *Construction and operating personnel will be instructed to follow all applicable Federal (NFPA 850), State and local fire prevention and safety recommendations.*
14. Site security and fencing (during construction and operations)
    - *A three wire barb wire fence will surround each project site. Each project substation and O&M facility will be enclosed by an 8 foot high chain link fence.*
    - *Motion detection alarm systems and remotely monitored security cameras will be utilized*

15. *Electrical components, new equipment and existing system upgrades*
    - *See Exhibit C for one-line diagram of solar energy collection system*
16. Interconnection to electrical grid
    - *See Section III.A.1. for a written description of the proposed plan to interconnect to the electrical grid, and Exhibit D for a map which shows the proposed interconnection transmission routes for (i) the 115kv transmission line would serve Phase 1, and (ii) the 230kV transmission line that would serve Phases 2, 3 & 4. The proposed routes for both lines follow existing State and County roads.*
17. Spill prevention and containment for construction and operation of facility
    - *Not Applicable*
18. Health and safety program
    - *Cannon will instruct personnel on, and monitor compliance with, all applicable Federal (e.g., OSHA standards for Electric Power Generation, Transmission, and Distribution Industry), State and local health and safety requirements.*

D. Other Federal, State and Local Agency Permit Requirements

1. Identify required permits (entire project area both federal and non-federal lands)
    - *Environmental Impact Statement-Federal*
    - *Environmental Impact Report-State*
    - *Land-Use Plan-BLM*
    - *Special Use Permit (transmission gen-tie)-San Bernardino County / Plan on submitting application to San Bernardino County approximately midway through EIS/EIR process (late 2009)*
2. Status of permits

    *<u>San Bernardino County Special Use Permit</u>*
    - *A special use permit from the County of San Bernardino will be required to use public right-of-way along County roads to construct the generator interconnection transmission lines described in Section III.A.1. An application associated with each generator interconnection transmission line will be submitted upon completion of Phase I Interconnection studies associated with each interconnection request. Phase I studies are scheduled to be completed for each generator interconnection request by July 22, 2011.*

E. Financial and Technical Capability of Applicant

*Cannon Power Corporation is a San Diego-based developer of wind power projects with over 26 years experience in developing, constructing, operating and maintaining wind turbine generating facilities in the United States and internationally. Along with its affiliates, Cannon has been involved in the development of over 30 major projects totaling more than 1,400 MW in the United States and internationally, and in 2003 was awarded American Wind Energy Association's Commercial Achievement Award for developing the first wind energy projects in California's newly restructured and deregulated electricity industry. Today, Cannon and its affiliates are concentrating on the North American market and selected European locations, where they have over 2,000 MW of wind projects, and over 1,000 MW of utility-scale solar projects, in various stages of development in the Western United States, Northern Mexico and Croatia. Additional information about projects currently developed by Cannon is set forth below.*

*Cannon has substantial experience in all phases of the wind energy development, including: (i) site analysis and acquisition, (ii) project design and construction, (iii) project development and financial structuring, and (iv) project operation, maintenance and management. The "Cannon Team" consists of highly qualified, dedicated professionals with many years of industry experience. This team works in close cooperation with carefully selected local partners and consultants in each country and region in which Cannon operates.*

*Cannon's development partner is HSH Nordbank which is the third largest bank in Germany and which has financed more renewable projects in the US and Europe than any other financial institution. Nordbank's credit rating is ranked "A" or better by Standard and Poor, Moody and Fitch.*

II. Construction of Facilities

A. Solar field design, layout, installation and construction processes including timetable and sequence of construction

- *See Exhibit E which shows the solar field design and layout of Section 10 (640 acres) in T6N/R1W which is part of the LVSP-1 project site.*
- *Construction Process*

  *<u>Installation of Support Pedestal</u>*

  1. *Drill a hole 48" in diameter and approximately 16' 6'' in depth (see Figure 5)*

*Figure 5*

2. *Install concrete footing holder above hole and imbedded 6" into the ground (see Figure 6)*

*Figure 6*

3. *Fill bottom of hole with 6" of compacted gravel bed. Depth of gravel bed shall be an amount such that the top of pedestal is 19' (+/- 1' above ground level). The total length of the pedestal is approximately 35 ft.*

4. *Lift pedestal by lifting points and place pedestal in hole (see Figure 7). Pedestal in 30" in diameter. Weight of pedestal is approximately 3,000 lbs.*

*Figure 7*

5. *Position pedestal in the center of the hole and vertical to within +/- 1 degree.*
6. *Add a protective 35 mil, cold-applied, tar tape adhesive wrap to the pedestal that covers 12" below and 6" above the line where the concrete will meet the pedestal.*
7. *Pour 3500 psi concrete non-structural backfill, mixed and placed IAW ACE 318 in hole around pedestal.*
8. *Install rain cap on top of pedestal*
9. *Level ground near pedestal and remove any excess dirt from the site.*

*<u>Installation of Drive/Torque Tube Unit and PV Modules</u>*

1. *Position crane to reach drive/torque tube assembly and PV modules*
2. *Attach crane to drive/torque tube assembly, lift assembly, and set on top of pedestal. The drive/torque tube assembly must be positioned with the torque tube lying in a East/West direction with the actuator head on the North side as shown in Figure 8.*

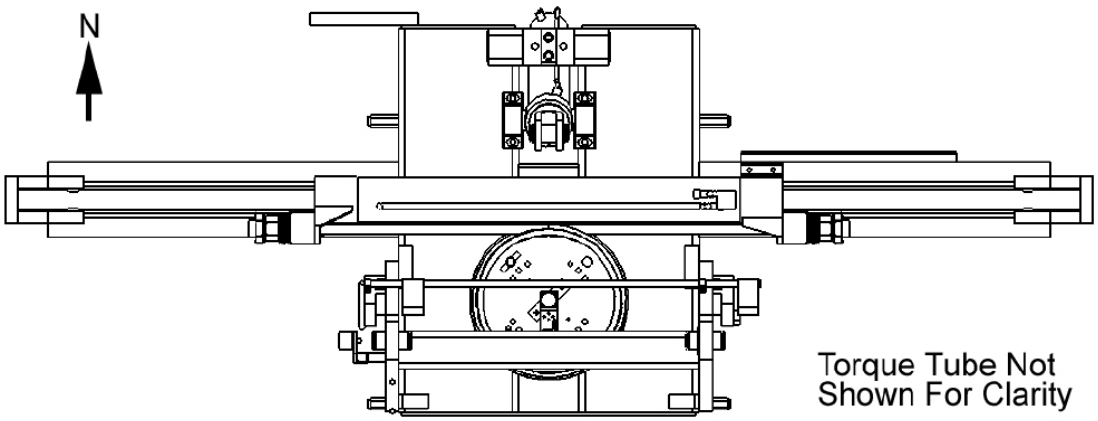


*Figure 8*

3. *Bolt drive head to pedestal*
4. *Secure four lifting straps to the PV module as shown in Figure 9.*

*Figure 9*

5. *Lift PV module and position it above the center mounting brackets of the drive/torque tube assembly as shown in Figure 10. PV module is marked to indicate its top/bottom. The top must be placed on the actuator side of drive (north).*

*Figure 10*

6. *Repeat step 5 for the remaining six modules that will be mounted on the torque tube in the outside positions.*

*<u>Installation of Hydraulic Control Equipment, and Inverter</u>*

1. *Lift and attach equipment cage to the side of the pedestal such that floor of equipment cage is approximately 12' above ground level.*
2. *Install hydraulic control equipment and 60kVA, 320VDC/208VAC inverter on pedestal such that it is accessible by personnel working on equipment cage.*
3. *Install conduit along side of pedestal and then run low voltage cable through conduit from inverter to cable box located at base of pedestal. Cable box shall be imbedded in ground approximately 12". Install three phase plus neutral 600V underground electrical cable from inverter through conduit to cable box at base of pedestal.*

*<u>Installation of Low and High Voltage Electrical Cable</u>*

1. *600V low voltage cable will be direct buried in a trench approximately 3 ½ to 4 feet deep to provide a minimum of 3 feet of earthen cover and routed to a terminal cabinet, where power from up to 5 solar arrays will be connected. Power supply from two terminal cabinets (10 solar units) will feed a single, 600kVA, 320VDC/208VAC, three-phase transformer.*
2. *A group of about 944 distribution transformers (50 MW) will be connected together and delivered to a circuit breaker at the Project substation via a 34.5kV direct-buried underground cable. The 34.5kV cable will be buried in a trench at the same depth as the low voltage*

*cable.*

B. Phased projects, describe approach to construction and operations

- *Approximately 8.65 MW of solar arrays will be installed every 4 weeks until the total project capacity is reached. Following the installation of an 8.65 MW group of solar arrays, that group will be tested for 4 weeks when, upon completion, the group will be placed in-service.*

C. Access and transportation system, component delivery, worker access

- *See Exhibits F1, F2 & F3, Transportation Routes*

D. Construction work force numbers, vehicles, equipment, timeframes

- *See Exhibits G-1 and G-2, Work Force and Delivery Schedule*

E. Site preparation, surveying and staking

F. Site preparation, vegetation removal and treatment

G. Site clearing, grading and excavation

H. Solar array assembly and construction

- *See response to Section II.A above*

I. Power plant construction

- *Not applicable*

J. Gravel, aggregate, concrete needs and sources

- *A temporary cement batch plant will be built on site to provide the Project with cement primarily required for foundations (e.g., support pedestals and distribution transformers). Aggregate material needs will be trucked in from local sources.*

K. Electrical construction activities

L. Aviation lighting (power towers, transmission)

- *Not applicable*

M. Site stabilization, protection, and reclamation practices

- *No significant site mediation is planned other than the grading of roads.*
- *At the end of Project life, all equipment will be removed and the site returned to its original state.*

III. Related Facilities and Systems

A. Transmission System Interconnect

1. Existing and proposed transmission system

- *<u>LVSP-1</u>: Phase 1 Project's 34.5/115kV substation will consist of one (1) 210 MVA, 34.5/115kV step-up transformer. The 115kV Phase 1 Project Substation will connect to its planned point-of-interconnection to SCE's 115kV Cottonwood-Savage transmission line via a 115kV "gen-tie." The*

*proposed route of the 115kV gen-tie is south along State Highway 247 for about 13 miles to Old Woman Springs Road where it will continue south for about 0.3 miles along Barstow Road (County Rd) to State Highway 18 at which point it will continue southeast along State Highway 18 for about 7.7 miles to just east of SCE's Cottonwood Substation (See Exhibit D).*

- *LVSP-2: Phase 2 Project's 34.5/230kV substation will consist of one (1) 275MVA, 34.5/230kV step-up transformer. The proposed route of the 230kV transmission line connecting the Phase 2 Project substation to the Project's 230kV Switchyard is along Project leased land that runs southeast parallel to Lucerne Valley Cutoff for about 2.5 miles to the 230kV Switchyard at the junction Lucerne Valley Cutoff and Hwy 247 (See Exhibit D).*
- *LVSP-3: Phase 3 will have two (2) 34.5/230kV substations each with one (1) 200MVA, 34.5/230kV step-up transformer. One 34.5/230kV substation will be located in the southwestern corner (next to Lucerne Valley Cutoff) of the eastern portion of Phase 3 land, and the second 34.5/230kV substation will be located in the southeast corner of the western portion of Phase 3 land. The proposed route of the 230kV transmission line connecting the western 34.5/230kV substation to the Project's 230kV Switchyard is southeast from the substation along Project leased land that runs parallel to Lucerne Valley Cutoff for about 4 miles to the switchyard at the junction of Lucerne Valley Cutoff and Hwy 247. The proposed route of the 230kV transmission line connecting the eastern 34.5/230kV substation to the Project's 230kV Switchyard is south from the substation along Project leased land to Hwy 247 and then southwest along Project leased land that runs parallel to Hwy 247 to the switchyard (See Exhibit D).*
- *LVSP-4: Phase 4 solar collectors will connect into Phase 3's eastern 34.5/230kV substation. Thus, no additional transmission facilities are required for this phase of the Project.*
- *230kV Switchyard: The Project's 230kV Switchyard will connect to phases 2-4 planned point-of-interconnection at the 230kV Lugo-Pisgah transmission line via a 230kV gen-tie. The proposed route of the 230kV gen-tie is south along State Hwy 247 for about 6.0 miles. The 230kV gen-tie and the 115kV gen-tie would be strung on opposite sides of the same pole structures for the first 6 miles along State Hwy 247 (See Exhibit D).*
- *LVSP-5: Phase 5 Project's 34.5/230kV substation will consist of one (1) 330MVA, 34.5/230kV step-up transformer. The Project's planned point-of-interconnect is at the Project substation. The existing 230kV transmission lines running adjacent to the substation will be "looped-through" the Project substation to effectuate interconnection (See Exhibit D).*

2. Ancillary facilities and substations
   - *See response above.*

3. Status of Power Purchase Agreements
    - *Cannon is actively marketing power that would be produced from both project phases. Based on current market prices for renewable power and the projected cost of the proposed solar equipment, Cannon feels confident that it will be successful in obtaining a power purchase agreement in 2009.*
4. Status of Interconnect Agreement
    - *LVSP-1: A generator interconnection request was submitted to Southern California Edison Company on February 27, 2008 (Queue #51). The expected study timeline for completing the interconnection study is shown in Exhibit A-1.*
    - *LVSP-2, 3, & 4: A generator interconnection request was submitted to the California Independent System Operator on February 27, 2008 (Queue # 303). The expected study timeline for completing the interconnection study is shown in Exhibit A-2.*
5. General design and construction standards
    - *Project will be built to generally accepted utility practices.*

B. Gas Supply Systems (as appropriate)

1. Backup natural gas generation requirements
    - *Not Applicable*
2. Pipeline routing considerations and construction standards
    - *Not Applicable*
3. Metering stations
    - *Not Applicable*

C. Other Related Systems

1. Communications system requirements (microwave, fiber optics, hard wire, wireless) during construction and operation
    - *A master unit supervisory control and data acquisition system (SCADA) will be installed at each O&M building. The master unit will communicate with slave units installed on each solar array via a radio signal to gather performance data from and provide tracking positioning instructions to each solar unit. The master SCADA unit will also communicate performance data and site meteorological conditions to the purchasing utility's scheduling group, the equipment supplier and Cannon's headquarters.*

IV. Operations and Maintenance

A. Operation and facility maintenance needs

- *Washing of solar array lenses each quarter*
- *Lubrication of drive head and replacement of compressor motor oil every 3 years*

B. Maintenance activities, including mirror washing and road maintenance

- *It is anticipated that the paved asphalt access road to each O&M Facility will be resurfaced about every 10 years. It is not anticipated that the dirt access roads will require re-grading during the life of the project except in the event of a rare, violent thunderstorm.*
- *The routine preventive maintenance schedule is shown below.*

| ***Preventative Maintenance Schedule*** | |
|---|---|
| ***Item*** | ***Frequency*** |
| *Wash lens* | *every 2 to 3 months* |
| *Air filters* | *every 1 year* |
| *Hydraulic Oil Change* | *every 3 years* |
| *Grease Bearing* | *every 5 years* |
| *Replace Inverters* | *every 10 to 15 years* |

C. Operations workforce and equipment

- *The operations workforce and equipment will be as follows:*

| | *LVSP-1* | *LVSP-2* | *LVSP-3* | *TOTAL* |
|---|---|---|---|---|
| ***Operations Workforce*** | | | | |
| *Technicians* | *4* | *3* | *3* | *10* |
| *Wash Crew* | *2* | *2* | *2* | *6* |
| ***Equipment*** | | | | |
| *Wash Truck* | *1* | *1* | *1* | *3* |
| *Boom Truck* | *1* | *0* | *1* | *2* |
| *Man Lift* | *2* | *2* | *2* | *6* |

IV. Environmental Considerations

A. General description of site characteristics and potential environmental issues (existing information)

1. Special or sensitive species and habitats
2. Special land use designations
3. Cultural and historic resource sites and values
4. Native American Tribal concerns
5. Recreation and OHV conflicts
6. Other environmental considerations

B. Mitigation measures proposed by applicant and included in POD

V. Maps and Drawings

A. Maps with footprint of solar facility (7.5 min topographic maps or equivalent to include references to Public Land Survey system)

B. Initial design drawings of solar facility layout and installation, thermal power conversion facilities, electrical facilities and ancillary facilities. These initial design drawings will typically be a 30% Engineering and Civil Design package to adequately describe the proposed project and evaluate the design considerations for soils, drainage and watershed management.

C. Initial site grading plan

D. Maps with transmission facilities, substations, distribution, communications

E. Access and transportation maps

## SUPPLEMENTARY INFORMATION

Additional Supplementary Information will be required from the applicant in order to prepare the NEPA analysis and complete the review process, but is not required to be submitted with the initial POD. This information may be filed after the publication of a Notice of Intent to prepare an EIS, but is required before the BLM can complete the environmental analysis. This information is developed as further data is gathered on-site and as alternative designs and mitigation measures are incorporated into a final POD. Other environmental data and inventory information (including but not limited to cultural resources, sensitive species and other biological data) will also be required to be collected by the applicant in order to prepare the NEPA analysis.

1. Engineering and Civil Design
   a. Facility survey and design drawing standards
   b. Final engineering and civil design packages for all solar facilities, thermal power conversion facilities, electrical facilities and ancillary facilities that incorporate all mitigation measures developed in the NEPA analysis and incorporated into the final POD
   c. Watershed and drainage analysis and calculations
   d. Watershed protection and erosion control design drawings
   e. Final site grading plans

2. Alternatives Considered by the Applicant
   a. Alternative site evaluation criteria
   b. Alternatives considered but not carried forward by proponent
   c. Comparative analysis of proponent's alternatives
   d. Alternative site configurations

3. Facility Management Plans
   a. Stormwater Pollution Prevention and Protection Plan
   b. Hazardous Materials Management Plan
   c. Waste Management Plan
   d. Invasive Species and Noxious Weed Management Plan
   e. Health and Safety Plan (meeting OSHA requirements)
   f. Environmental Inspection and Compliance Monitoring Plan

4. Facility Decommissioning
   a. Reclamation and site stabilization planning
   b. Temporary reclamation of disturbed areas

c. Removal of power generation and substation facilities
d. Removal of heliostats/panels
e. Removal of other ancillary facilities